APA009Hu01 100μg
Active Active Angiopoietin 2 (ANGPT2)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Lys24~Leu165
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 5.4
Predicted Molecular Mass: 17.6kDa
Accurate Molecular Mass: 18kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.
Store at 2-8°C for one month.
Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37ºC for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

KSMDSIG KKQYQVQHGS CSYTFLLPEM DNCRSSSSPY VSNAVQRDAP LEYDDSVQRL QVLENIMENN TQWLMKLENY IQDNMKKEMV EIQQNAVQNQ TAVMIEIGTN LLNQTAEQTR KLTDVEAQVL NQTTRLELQL LEHSL

[ACTIVITY]

Angiopoietin is part of a family of vascular growth factors that play a role in embryonic and postnatal angiogenesis. Angiopoietin cytokines are involved with controlling microvascular permeability, vasodilation, and vasoconstriction by signaling smooth muscle cells surrounding vessels. There are now four identified angiopoietins: ANGPT1, ANGPT2, ANGPT3, ANGPT4. Angiopoietin 2 (ANGPT2) promotes cell death and disrupts vascularization. Yet, when it is in conjunction with vascular endothelial growth factors, or VEGF, it can promote neo-vascularization. Besides, TEK Tyrosine Kinase (Tie2) has been identified as an interactor of ANGPT2, thus a binding ELISA assay was conducted to detect the interaction of recombinant human ANGPT2 and recombinant humanTie2. Briefly, ANGPT2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to Tie2-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-ANGPT2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 ℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of

ANGPT2 and Tie2 was shown in Figure 1, and this effect was in a dose dependent manner.

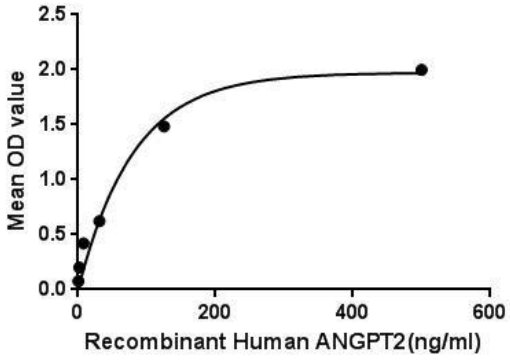

Figure 1. The binding activity of ANGPT2 withTie2.

[IDENTIFICATION]

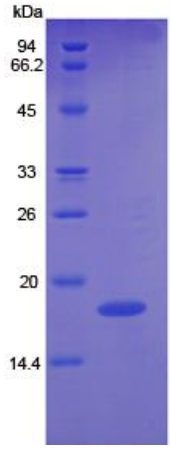

Figure 2. SDS-PAGE

Sample: Active recombinant ANGPT2, Human

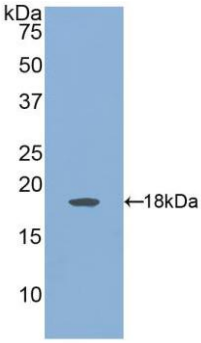

Figure 3. Western Blot

Sample: Recombinant ANGPT2, Human;

Antibody: Rabbit Anti-Human ANGPT2 Ab (PAA009Hu01)

[IMPORTANT NOTE]

The kit is designed for in vitro and research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.